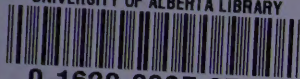


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Discussion Paper No. 21

FRONTIER FERTILITY: A STUDY
OF FORT MCMURRAY FAMILIES

by

Carol Vlassoff* and J.W. Gartrell⁺

*Population
Research Laboratory*

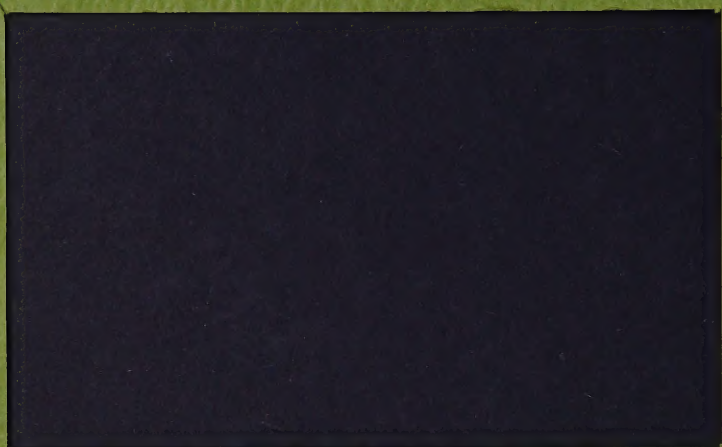


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Frontier Fertility: A Study of Fort McMurray Families

Carol Vlassoff and J.W. Gartrell

Abstract

During the past decade, considerable research has focused on resource communities and the socio-economic impact of rapid growth and single industry dependence. The investigation of demographic factors in such research has been limited principally to broad profiles which set the background for otherwise non-demographic analyses. Fort McMurray provides an appropriate setting for the more detailed investigation of fertility and its possible links to economic factors since its population is young, with a high proportion of married couples of child-bearing age. One would expect economic incentives to be foremost in this highly mobile, economically active population, with the consequence that fertility would be lower than in more typical Canadian families. Do fertility patterns in Fort McMurray differ from those in other Canadian communities with older, more settled populations? Is length of residence in Fort McMurray linked to variation in family size? Finally, does fertility within the community vary in any unusual ways according to socio-economic factors such as income, education and occupation?

A random sample survey of 228 adults conducted in June 1979 showed that fertility in Fort McMurray was similar to that of the larger Canadian population. Length of residence in the community was positively related to larger family size, but this effect disappeared when other variables were controlled. Fertility before and after the move was essentially the same. Differences in fertility within Fort McMurray were associated with socioeconomic factors in similar ways to those observed in Canada, varying inversely with education and female labour force participation. Income and religion, among other variables, had little independent effect upon family size.

Introduction

During the past decade, considerable research has focused on resource communities and the socioeconomic impact of a single, prospering industry. Such studies have been preoccupied with the "boom to bust" mentality typically assumed to characterize residents of such localities, and the accompanying problems of social and psychological adjustment to their isolated circumstances (Bowles, 1979; Nickels and Ledger, 1976; Porteous, 1976; Riffel, 1975; Lucas, 1971; Jackson and Poushinsky, 1971).

The investigation of demographic factors in resource town research has been limited principally to broad profiles which set the background for otherwise non-demographic analyses. The only demographic variable receiving separate attention is migration, due to the unusually high mobility of boomtown populations (Riffel, 1976; MacMillan et al., 1974; Jackson and Poushinsky, 1971; Lucas, 1971). Other demographic processes have remained unexplored, among them, fertility and its possible link to economic factors. The present study, based on data collected in a frontier Alberta town, focuses specifically on this issue. In particular, the following questions are asked:

- (1) Does fertility in Fort McMurray differ from that of other Canadian communities with older, more settled populations?
- (2) Is length of residence in Fort McMurray linked to family size differences?

- (3) Does fertility within the community vary in any unusual ways according to socioeconomic factors such as income, education and occupation?

The investigation of fertility in Fort McMurray is interesting not only because it addresses a research gap but also because it provides insights into the broader relationship between economic incentives and fertility. In recent years, explanations for declines in population growth have taken several forms: the increasing emphasis on the "quality", as opposed to "quantity", of children, increasing female labour force participation and opportunity costs, population pressure on scarce resources, and so on. Common to all these arguments is an economic base: general well-being, whether for the family or society as a whole, is maximized by small family size.

Fort McMurray provides an appropriate setting for further exploration of this hypothesis firstly because its population is young, with a large proportion of married couples of child-bearing age, and secondly because its residents probably migrated to the area principally for economic reasons (Matthiasson, 1971). Moreover, residents of resource communities are typically seen as "rolling stones", moving frequently from place to place (Larson, 1979; MacMillan et al., 1974; Matthaisson, 1971). We anticipated, therefore, that this youthful, highly mobile, economically active community would exhibit lower fertility than the larger Canadian population.

Three further characteristics of frontier settlement led us to anticipate that Fort McMurray would be unattractive for settled family life: the stress associated with the move and subsequent adjustment period (Van Dyke, 1975; Fried, 1965), the inadequacy for services and facilities in frontier areas (Graham et al., 1975; Ward, 1973) and the unsavoury reputations of these communities* (McVey and Ironside, 1978). We expected, therefore, that for many couples migration to Fort McMurray would represent a temporary economic strategy for accumulating the necessary savings to establish permanent homes elsewhere. This line of reasoning seemed to be validated by Larson's (1979:94) findings: "Younger, smaller families are more inclined to migrate to such communities".

A few conceptual problems in studying fertility in Fort McMurray should be considered at the outset. First, we have of necessity selected only those migrants who have stayed in the community long enough to establish a domicile, albeit in many cases temporary. Hence we know nothing about the characteristics of migrants who have come and gone. Second, the average span of time spent by residents in the town is relatively short; therefore little can be said about the possible long-term influence of Fort McMurray life on fertility. Finally, our study is based on a limited sample and further investigation is necessary to substantiate our tentative findings.

* While the construction period was underway McVey and Ironside (1978) found that Fort McMurray was rated the least desirable city to live in, out of all communities of over 5,000 population in the province, by Alberta residents.

Data and Methods

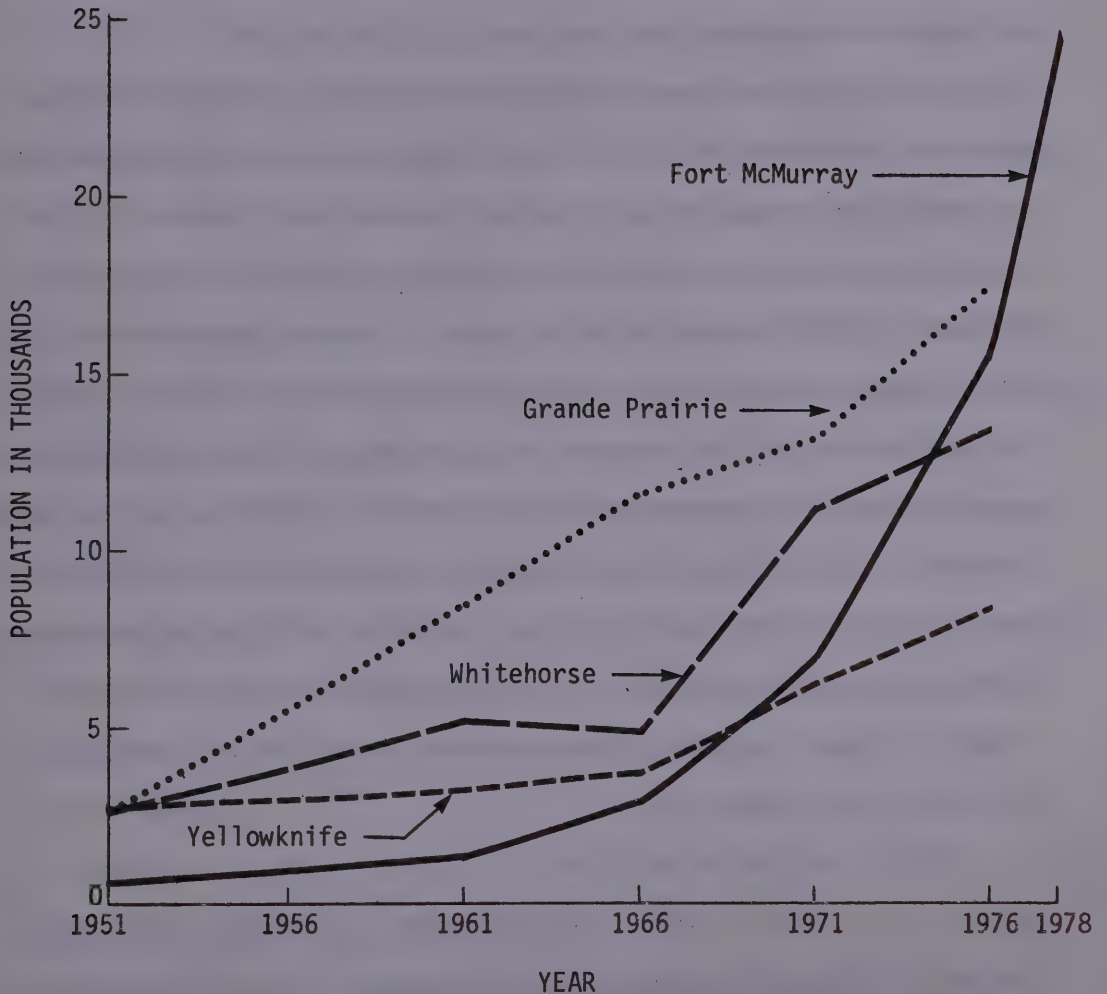
A social impact study was conducted during the Spring of 1979 in Fort McMurray, a resource community located 450 kilometers north of Edmonton. During the past 15 years, the town has grown at rates unprecedented by other northern communities (Figure 1). Workers flocked to the area in two major waves: the first, for the construction of the Great Canadian Oil Sands (GCOS)* plant during 1963-1968, when the population grew at a rate of 38.5% per year; the second, for the building of Syncrude during 1973-1978, when the population grew at 21.4% annually. The latter plant is only now reaching full operation. Fort McMurray's population has increased in a cyclical manner with construction, but growth has been considerable even in other phases. Indeed, those living on the building site**are not included in the municipal censuses; hence, the full impact of the construction period is grossly underestimated.

The first migrants to the area were primarily single men who lived in construction camps near the plants. As GCOS became operational, family migration became more prominent, a pattern encouraged by recent policies of both companies. Correspondingly the proportion of the population aged 15 and over which was married increased from 63% in 1961 to 75% in 1971. This is higher than reported in other northern communities for 1971: Yellowknife had only 44% married, Grand Prairie, 67%, and Whitehorse, 69%.

* Now called Suncor.

**Approximately 6,000 men in 1976-1977.

Figure 1. Population Growth in Fort McMurray and Other Northern Canadian Communities 1951 - 1978.



Sources: Data for all towns except Fort McMurray are provided in Buse (1978). Fort McMurray data is from Municipal Censuses.

The constant pressure on existing facilities and the demand for new and expanded services have caused concern among local and provincial planners, not only over the community's capacity to cope with these needs but also over the migrants' ability to adjust to their unsettled circumstances. The present research on human adjustment in Fort McMurray was commissioned in response to these questions.

Previous research on Fort McMurray had been limited to municipal censuses, conducted annually, and government or agency surveys designed to investigate a specific problem such as housing or the provision of special services. A study by Matthiasson in 1969 focused on mobility and the quality of life, but failed to select an independent random sample, as did a survey of community problems by Van Dyke and Loberg in 1975. We therefore refer to the results of such research with hesitation, since we do not know how representative they are. Our study focused on socio-economic variables, such as employment, housing, community services and family life, but demographic factors, including marriage, migration and fertility were also examined. The quantitative analysis of these factors has been ignored by previous surveys and fertility measures have been totally neglected.

The data was collected during May and June, 1979. A systematic sample of 430 dwelling units was drawn from a total number of 8,606 residences. The interviewer selected a random adult within the household by means of a sampling chart (following Kish, 1965) contained in each questionnaire. By employing several sampling charts, randomness was

ensured. The present analysis selects only currently married women of fertile ages (under 46 years old), 228 respondents in total. Since the survey sampled both males and females, the data utilized in this paper was obtained from the wife in 142 cases, and from the husband concerning his wife in 86 cases.

Fertility was measured by total number of live-born children, and expected completed family size. Questions were included on duration of marriage and age of wife, variables which by their nature have important effects on fertility. Since these two measures are highly interactive, duration of marriage is generally favoured in the present analysis. The socioeconomic status of respondents was gauged by a level of living index* which incorporated an exhaustive list of consumer items: vehicles, household possessions, property and investment indicators. The other independent variables used in the present paper are education, (number of years of schooling completed), wife's employment status, number of years resident in Fort McMurray, religion (Roman Catholic or non-Catholic), respondent's nativity (Canadian-born or foreign-born) and rural-urban background (defined by the respondent and grouped as "rural" + "small town" = rural).

Selected Characteristics of the Sample

Descriptive data on the sample confirmed our expectations that Fort McMurray's population would be young, highly mobile and economically

* This index is preferred to income information which, due to respondent sensitivity or question complexity, was missing in 16% of the cases.

motivated. For example, in the 1979 Municipal Census, those over 44 years of age represented only 7% of the population, compared to 25% for Alberta and 28% for Canada. Even in the context of other northern resource towns, this percentage is unusually low. In 1976, for instance, only 14% of the population aged 20+ in Fort McMurray was over 44, compared to 22% for Yellowknife and 32% for Grande Prairie (Gartrell et al., Forthcoming). The average age of our sample, which constituted 86% of total adult females sampled in the community, was 30.4 years.

Geographic mobility was assessed by several measures, among them, the number of moves between different places in the five years preceding the survey. Our respondents had moved an average of 2.2 times (both before and after coming to Fort McMurray) and only 18% had not moved at all during the period. This represents a high level of geographic mobility even within Canada's relatively migratory population. In the nation as a whole, stayers account for about 60% of the most highly mobile age group, 25-29 (Kalbach and McVey, 1979; 135).

As anticipated, Fort McMurray residents were better off economically than the majority of Canadians. The average total household income for our sample was \$27,000 in 1978*, considerably higher than estimated Edmonton incomes during the same period, \$21,000 (Kennedy and Northcott, 1979). Even if we add an inflation factor, these rank above 1977 Alberta

* Since this refers to total income earned in 1978 it includes incomes earned elsewhere as well as in Fort McMurray for 1978 migrants. When only those who had resided the whole year in Fort McMurray are selected, incomes are even higher.

and Canadian household incomes, \$17,600 and \$16,800 respectively. The sample's median income of \$29,500 illustrates that the higher than average incomes were not statistical oddities produced by a few families with extremely high incomes. Moreover, the respondents were not a select group of professional individuals who would receive these incomes no matter where they lived. Fort McMurray had a lower proportion of its population in professional, technical and managerial occupations (24%) than Edmonton (33%) (Kennedy and Northcott, 1979), and a higher percentage in lower status professions such as processing and construction. Overtime contributed substantially to the high wages earned in the community.

The women in our sample had, on average, 11.9 years of education. Only 6% had dropped out at the elementary level and 22% had completed more than 13 years of education. This compares favourably with Canadian Census data for 1976 where only 16% of women aged 20-44 had finished secondary school (Canada, 1978: 29-1). Such a comparison is somewhat misleading, however, because the national data included a large proportion of older women, where educational attainment is considerably lower. In the age group 20-24, for instance, Canadian female levels for 1976 were as high as 24% with high school completion. Hence, the educational levels of Fort McMurray females may largely reflect recent national trends.

Female labour force participation in Fort McMurray resembled the rest of Canada: the participation rate for women was estimated at 48.3% in June, 1979, compared to the national unadjusted rate of 49.5%. Corresponding male rates were 97.5%* for Fort McMurray and 80.3% for Canada as a whole (Gartrell et al., Forthcoming). This indicates the high economic returns, at least for men, of moving to Fort McMurray.

A relatively high proportion of our sample (21%) were first generation immigrants to Canada. Interestingly, over half the immigrants had migrated since 1971 and about 2% had come directly to Fort McMurray from their countries of origin. Only 30% of the sample was born in Alberta; 33% was from eastern Canada. Respondents with urban backgrounds constituted 43% of our sample; 44% came from small towns and 13% from rural areas. The majority of respondents were Protestant (46%), followed by Roman Catholics (30%), other non-Christian religions (13%) and "no religion" (11%). This distribution is somewhat different from that of Alberta in 1971, where only 24% of the population was Roman Catholic, probably reflecting the influence of migrants from eastern Canada.

Results

(a) Actual and expected fertility

Fertility in Fort McMurray reveals clear and stable patterns. Table 1 presents average parities and mean expected family sizes in women of

* These participation rates are somewhat inflated by the unusual age structure of the base population: less than 1% of residents were over 65 years old (Fort McMurray, 1979).

TABLE 1. MEAN ACTUAL AND EXPECTED NUMBER OF CHILDREN BY AGE OF WIFE AND DURATION OF MARRIAGE FOR WOMEN UNDER 46 YEARS OLD

Age of Wife and Duration of Marriage	Mean Number of Children		N
	Actual	Expected	
Age of Wife			
Less than 25	0.78	2.33	37
25-29	1.68	2.35	74
30-34	2.24	2.37	62
35-40	2.93	2.93	29
40+	3.24	3.28	25
Total	2.02	2.53	227*
Duration of Marriage			
Less than 3 years	0.61	2.50	36
3- 5	1.42	2.38	24
6-10	1.94	2.20	78
11-15	2.17	2.21	48
15+	3.83	3.86	36
Total	2.02	2.55	222*

*Totals do not correspond due to missing data on duration of marriage variable.

child-bearing ages. Women have had a mean of 2 children and anticipate an average completed family size of 2.5. The relationships between the fertility indicators and wife's age are linear and monotonic, rising smoothly as we advance from younger to older age categories (linearity: $F = 89.3$, $r^2 = .285$). With regard to marriage duration, there is a significant non-linear component to the relationship ($r^2 = .411$, $\eta^2 = .458$; $F = 6.24$, $P < .001$) but it is approximately linear. In the case of number of children expected, the relationship is non-linear ($r^2 = .064$, $\eta^2 = .234$; $F = 15.65$, $P < .001$) and approximates a J curve. The most striking parity difference is between women married 11-15 years and those married more than 15 years. Such a pronounced difference (an average of 1.6 children) cannot be totally attributable to definite shifts in societal norms concerning child-bearing, nor are there significant variations in length of stay in Fort McMurray by marriage duration. Our findings clearly indicate, however, that fertility has dropped dramatically in more recent cohorts and, judging from women's expected family sizes, it seems that families will remain small.

Contrary to our expectations, fertility in Fort McMurray is similar to that observed in other parts of Canada (Table 2). In the 40+ cohort, which approximates completed fertility, average parity closely resembles that of Canadian cities, with the exception of Toronto. Average family size is smaller in Fort McMurray than in other areas, probably due to the fact that our sample, is, on average, younger. In the Toronto study,

TABLE 2. COMPARISON OF FORT MCMURRAY RESULTS WITH SELECTED CANADIAN STUDIES: AVERAGE PARITY BY AGE GROUP

Age Group	Average Parity				Fort McMurray (1979)
	Toronto (1968)	Ottawa* (1973)	3 City** Average (1971)	Canada (1971)	
Less than 25	1.02	0.9	0.83	0.91	0.78
25-29	1.50	1.8		1.71	1.68
30-34	2.47	2.7	2.45	2.62	2.24
35-39	2.68	3.2		3.16	2.93
40	2.73	3.3	3.10	3.35	3.24
Total	2.25	2.5	2.56	2.31	2.02
N	1630	802		2307	227

* Data reported to one decimal point only.

** Montreal, Toronto and Vancouver. Data for selected age groups only.

Sources: Toronto: Balakrishnan et al., 1975:23
Ottawa : Pool, 1975:30
3 Cities: Lapierre-Adamcyk, 1979:20
Canada: Collishaw, 1976:42

for example, 52% of the women were under 35 years of age, compared to 76% of those in the Fort McMurray sample. Comparisons of expected completed family size in the two cities confirm this point: women aged 35-39 expected equal numbers of children (mean = 2.9).

We also examined data from the 1979 Canadian census sample surveys, since most of our sources for the above comparisons are nearly a decade old. The 1976 data is not strictly comparable because it refers to number of resident children per husband-wife family but, for younger women, it should closely approximate number of live births:

<u>Age Group</u>	<u>Number of children</u>		
	<u>Canada*</u>	<u>Alberta*</u>	<u>Fort McMurray</u>
Less than 24	0.7	0.7	0.8
25-34	1.7	1.9	1.9

Our results once again confirm the similarity of Fort McMurray to the rest of Canada: to Alberta, in fact, it is virtually identical.

While we have used both the independent variables, age of wife and duration of marriage for purposes of comparison, the remaining analysis will utilize the latter indicator only. Both variables are highly correlated ($r = .844$) but duration of marriage is more closely related to parity ($r = .680$) than age ($r = .539$).

* The parities for Canada and Alberta (Canada, 1976: Table 9) are somewhat underestimated since they include only living resident children. Due to the absence from the household of older children, the data for the 35+ age group is problematic and is not presented here.

On the basis of our evidence, it appears that Fort McMurray women exhibit remarkably "typical" fertility behaviour. We still do not know, however, whether this was true of migrants when they first decided to come to this remote community. In other words, our original hypothesis could be true, but something unforeseen in the boomtown experience somehow alters previous intentions. Our data did not permit us to easily examine the number of children born before and after moving to Fort McMurray. However, by splitting the independent variables, duration of marriage, into two categories, we could estimate surrogate "fertility rates" per year of marriage before and after the move. Socioeconomic factors generally related to both fertility and migration, namely, education, employment, nativity, rural-urban background, religion and level of living, were controlled. The effects of these variables will be discussed in the following section.

Table 3 shows that fertility is virtually identical during the two periods. Each year of marriage, whether before or after the move, contributes, on average, 0.14 children. The larger standard error associated with the "after McMurray" variables may reflect the instability associated with moving. This is further confirmed by the fact that the average length of marriage was greater before migration to Fort McMurray (6.3 years) than afterwards (2.6 years).

TABLE 3. MULTIPLE REGRESSION EQUATIONS: PARITY WITH "SPLIT"
DURATION OF MARRIAGE (MARDUR) VARIABLES AND OTHER
SOCIOECONOMIC VARIABLES (N = 210)

Independent Variable	B	Beta	Standard Error B	F	r
Years Married Before Ft.McM.	0.139	0.576	0.012	128.92*	0.613
Years Married After Ft. McM.	0.136	0.269	0.027	25.56*	0.307
Wife's Education (Years)	-0.092	-0.157	0.031	8.71*	-0.261
Wife Employed**	-0.337	-0.118	0.144	5.48*	-0.132
First Generation Immigrant**	-0.285	-0.081	0.182	2.44	-0.160
Urban Background**	-0.132	-0.046	0.149	***	-0.153
Roman Catholic**	-0.058	-0.019	0.155	***	-0.046
Level of Living Index	-0.005	-0.018	0.021	***	-0.160
Constant	2.221				

$R^2 = 0.511$ $\bar{R}^2 = 0.492$ $F = 26.28$ $P < .0001$
Standard Error = 1.01

* Effects significant ($p < .01$).

** Binary variables: employed, immigrant, urban, Roman Catholic = 1.

***F smaller than 1.

(b) Variations in fertility by socioeconomic indicators

We also investigated variations in fertility within Fort McMurray in order to see whether any unusual patterns emerged. Previous research in Canada has shown that fertility varies according to a number of socio-economic characteristics such as education, income, country of birth, religion, labour force status of the wife, and rural-urban background. Henripin (1968) found that rural-urban background, level of schooling, wife's religion, husband's income and native language of wife were all related to fertility. Analyzing 1971 census data Collishaw found that such differentials were declining but that education and income still affected fertility. Interestingly, however, the relationship with income, which in 1961 was negative, had become positive by 1971. The Toronto study (Balakrishnan et al., 1975) and a fertility survey in Quebec (Henripin and Lapierre-Adamcyk, 1974) noted broadly similar associations, although these were less pronounced than the overall Canadian results. Income, moreover, did not have a significant or systematic effect on fertility in the Balakrishnan study. Finally, in a comparison of Canadian metropolitan areas between 1961 and 1971, socioeconomic variables became, over the inter-censal period, less effective tools for explaining fertility differences (Lapierre-Adamcyk, 1979).

Zero order correlation coefficients for parity and selected socioeconomic variables in the Fort McMurray sample are presented in Table 4 (last column). With the exception of religion, all the effects are

TABLE 4. MULTIPLE REGRESSION EQUATION: PARITY WITH DURATION
OF MARRIAGE AND OTHER SOCIOECONOMIC VARIABLES (N = 210)

Independent Variables	B	Beta	Standard Error B	F	r
Years Married	0.156	0.693	0.011	187.89*	0.718
Wife's Education (Years)	-0.074	-0.127	0.029	6.37*	-0.261
Wife Employed**	-0.330	-0.116	0.135	5.98*	-0.132
First Generation Immigrant**	-0.270	-0.077	0.171	2.50	-0.160
No. of Years in Ft. McM.	0.025	0.056	0.022	1.28	0.245
Level of Living Index	-0.018	-0.049	0.020	***	0.160
Urban Background**	-0.085	-0.030	0.140	***	-0.153
Roman Catholic**	Too small to be computed.				-0.056
Constant	1.764				

$R^2 = 0.568$ $\bar{R}^2 = 0.555$ $F = 44.44$ $P < .0001$

Standard Error = 0.946

* Effects significant ($p < .01$).

** Binary variables: employed, immigrant, urban, Roman Catholic = 1.

*** F smaller than 1.

statistically significant at the .01 level. Education of the wife has the expected negative effect, as does her labour force participation. Women with post-secondary education have an average of 1.27 children less than those with only primary education; working women have 0.34 fewer children than housewives. In keeping with other findings, immigrants have lower fertility (mean = 1.65 children) than native-born Canadians (mean = 2.12 children). Rural-urban differentials appear to operate in the usual manner, with urban women having fewer children (mean = 1.73) than rural women (mean = 2.23 children). The positive relationship between income and fertility is in line with recent observations elsewhere in Canada: since the raising of children is costly those with more resources can afford relatively more offspring. The lack of effect of religion on fertility is perhaps not surprising in the light of findings by Collishaw (1976) that fertility differentials among religious denominations are disappearing. Length of stay in Fort McMurray is positively correlated with parity, a finding which casts further doubt on the validity of our low migrant fertility hypothesis. It may be the case that fertility is temporarily disrupted by moving but later adjusts to normal levels as living conditions stabilize.

Since many of the socioeconomic correlates are interrelated, a step-wise multiple regression analysis, with parity as the dependent variable, allowed us to assess their relative importance as determinants of fertility. Table 4 shows that the combination of independent factors accounts for a rather high 56% of the total variance in fertility.

Duration of marriage makes the most important contribution, accounting for 88% of the total variance explained*. Of the socioeconomic controls, only education and employment have significant independent effects on fertility. These results agree with those of Balakrishnan et al. (1975: 182) who, using multiple classification analysis, found that both wife's education and labour force participation were correlated with fertility, net of other socioeconomic factors. In the latter study, moreover, the effect of nativity upon fertility became more pronounced after taking other variables into account, whereas in the Fort McMurray sample, the effect largely disappeared. Controlling for duration of marriage probably explains our result, since immigrants had been married, on average, one year less than native Canadians. Further, religion had considerably more impact in the Toronto study; in ours, it was consistently unimportant.

Using multiple regression analysis, we also investigated whether our other fertility indicator, expected family size, was related to socioeconomic factors in similar ways as current fertility. In this case the independent variables explained much less variance ($\bar{R}^2 = 0.18$, Std. error = 1.124, $F = 7.34$, $P < .0001$). Duration of marriage continued to be an important predictor but it did not have the same dominating influence on anticipated family size as on parity (Cf. Balakrishnan et al., 1975: 184). Education, again, was significantly correlated with fertility; women with primary education planned to have an average of 3.14 children compared to only 2.29 for those with post-secondary schooling. Although the influences of the other independent variables upon expected family

* $\frac{\text{Beta} \times r}{R^2}$

size were in the expected direction, none added significantly to the predictive ability of the equation. While working women had significantly lower actual fertility (Table 4) they apparently did not expect to have fewer total children. This is in contrast to the Toronto study in which working women anticipated having smaller families than non-working wives.

Discussion

The overwhelming conclusion to emerge from these results is that the fertility of Fort McMurray couples was remarkably similar to the larger Canadian population. As expected, migrants were unusual in their mobility and economic behaviour, yet these factors were not linked to lower fertility. Nor did it seem that life in Fort McMurray had interfered with previous family size intentions, in the sense of providing competing incentives to counteract economic motivation for reduced or delayed child-bearing. From what we could tell, fertility before and after the move was essentially the same. Length of residence in the community was, in fact, positively correlated with larger family size, but this effect largely disappeared when other variables were controlled.

What explanation can be offered for the general conformity in family size among Fort McMurray couples? The results indicate that residents, while atypical in certain respects, tended to constitute an otherwise "normal" population. This conclusion is substantiated by evidence from the larger survey, especially concerning family adjustment and community

satisfaction. Several questions probed marital and familial interaction before and after moving to Fort McMurray, including the relative frequency of "doing things together". Overall, 84% of currently married couples were married when they came to Fort McMurray. Of those married before they came, 46% reported no change in marital relations, 26% said they had improved and 28% felt that they had worsened. However, only 10% of the parents reported a post-move decrease in interaction with children, 37% reported an increase, and the remainder reported no change. It seemed, therefore, that moving to Fort McMurray had more substantial effects upon spouse interaction than upon parent-child relations. Moreover, frequent interaction with children was associated with greater familial contentment in the survey data.

Community satisfaction, rated on a seven point scale, was high (mean = 6.3), and similar to scores obtained for the same questions in the 1979 Edmonton Area Survey (mean = 6.1). Moreover, about 42% of the sample planned to reside in Fort McMurray more or less permanently. The proportion of long-term residents, who had stayed more than 10 years, had doubled since 1969. This no doubt reflected the impact of local government efforts to make the town as attractive to settlers as possible by the provision of modern educational, health and recreation facilities, a variety of community services and excellent road and air communications with Edmonton. Incomes were high and economic satisfaction was marked: a solid majority of residents reported that their financial position had improved in the past year and expected further gains in the coming year.

Our findings also indicated that fertility was associated with socio-economic variables in ways resembling recent patterns observed elsewhere in Canada. The only exception was religion, which had no significant effect on family size. It was noted that even this result may correspond to emerging trends elsewhere in Canada. Level of living was positively associated with fertility, but the effect disappeared when other factors were controlled. The diminishing importance of income has been noted in other Canadian regions in recent years. Such findings call into question the attempt to link fertility and economic motivation in the Canadian context. It may be that most incomes, at least within Fort McMurray, were sufficiently large to foster high "quality" expectations regarding children among all segments of society. On the other hand, education and female labour force participation continued to differentiate couples according to family size.

Finally, our results cast doubt upon the stereotype of boomtowns such as Fort McMurray as "last chance" havens for deviants and transitory fortune-seekers. Residents, on the whole, displayed typical family-building behaviour; many, in fact, viewed the community as a place to establish a permanent home. Residents were not rolling stones who moved continually from place to place without any attachments; rather they were normal people who married, had children and settled down. It is possible, however, that the interrelationship between migration, fertility and economic motivation may vary among remote areas according to general

living standards or other related factors. Similar studies of resource communities located in divergent geographical regions, having different levels of socioeconomic development, or diverging employment policies, might well disclose peculiarities in the economics of fertility among boomtown migrants.

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